

ERNIE FLETCHER
GOVERNOR

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

TERESA J. HILL SECRETARY

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WATER
14 REILLY ROAD
, FRANKFORT, KENTUCKY 40601-1190
www.kentucky.gov

October 4, 2007

Mr. Herbert J. Schardein, Jr. Executive Director Metropolitan Sewer District 700 West Liberty Street Louisville, KY 40203

> Re: KPDES Application Complete KPDES No.: KY0098540 Cedar Creek WWTP AI ID: 2157 Activity ID: APE20070002 Jefferson County, Kentucky

Dear Mr. Schardein,

Your revised Kentucky Pollutant Discharge Elimination System (KPDES) permit application for the above-referenced facility was received by the Division of Water on August 29, 2007. A completeness review of your permit application has been conducted. Please be aware that you may be asked to provide additional information to clarify, modify, or supplement you application material. In accordance with 401 KAR 5:075, Section 1(7) you are being provided written notification that your application has been deemed complete as of the date of this letter.

If you have any questions concerning this matter, please call me at (502) 564-8158, extension 590.

Sincerely,

Sara J. Beard

Environmental Engineer Assistant III

KPDES Branch Division of Water

SJB

Enclosures

c:

Louisville Regional Office
Division of Water Files





Louisville and Jefferson County Metropolitan Sewer District 700 West Liberty Street Louisville Kentucky 40203-1911 502-540-6000 www.msdlouky.org



August 23, 2007

Vickie L. Prather, Acting Supervisor Division of Water Inventory and Data Management Section KPDES Branch 14 Reilly Road Frankfort, Kentucky 40601

Subject: Renewal Application KPDES No. KY0098540

Cedar Creek Regional Wastewater Treatment Plant

Dear Ms. Prather:

Enclosed are the completed applications (Form 1 and Form A) for the renewal of Cedar Creek Regional Wastewater Treatment Plant (CCWTP) KPDES permit KY0098540. Listed below are several key points that MSD would like to bring to the attention of the Division of Water (DOW) for this permit renewal. These points are:

Mills of the late

- 1. Receiving Water and Permit Limit (Antidegradation) Cedar Creek WTP discharges into Cedar Creek at mile point 11.9. This segment of Cedar Creek does not meet the criteria for impaired water and is not listed as exceptional water. Cedar Creek WTP regional facility plan (Action Update Plan) was approved by DOW in 2000. This demonstrates compliance with the alternative analysis and socioeconomic demonstration for a regional facility per 401 KAR 5:030. Based on this MSD proposes that all previously defined frequencies, monitored parameters, and discharge limits remain unchanged from the previous CCWTP permit.
- 2. Toxicity Sampling & Reasonable Potential Analysis (RPA) Attached is a draft RPA for the four (4) metals (cadmium, copper, lead, & zinc) that are required to be monitored quarterly in conjunction with Toxicity (biomonitoring) sampling. All of reported results were less than 70% of the calculated effluent limit so no additional monitoring above the required quarterly sampling in conjunction with biomonitoring or limits will be required.

If you have any questions please contact Daymond Talley at (502) 540-6980 or at talley@msdlouky.org.

Sincerely,

Herbert J. Schardein, Jr.

Executive Director

HJS/dmt

cc: D. Guthrie

A. Akridge

J. Porter

R. Shaw (eB)

D. Thomasson

D. Talley

M. Jenkins



MSD proposed revisions for Total Recoverable Metals justification of limits for the Fact Sheet of Cedar Creek WTP (KY0098540) permit

KPDES No.: KY0098540

Fact Sheet

Total Recoverable Cadmium

The monitoring requirement for the above permit parameter is consistent with 401 KAR 5:065 Section 2(4). A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) was used. The Steady State Toxics Wasteload Allocation Model (SSTWAM '04) generated the expected effluent requirements. All data reviewed for RPA are within the water quality standards. Monitoring will not be increased above the quarterly sampling required for Biomonitoring.

Total Recoverable Copper

The monitoring requirement for the above permit parameter is consistent with 401 KAR 5:065 Section 2(4). A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) was used. The Steady State Toxics Wasteload Allocation Model (SSTWAM '04) generated the expected effluent requirements. All data reviewed for RPA are within the water quality standards. Monitoring will not be increased above the quarterly sampling required for Biomonitoring.

Total Recoverable Lead

The monitoring requirement for the above permit parameter is consistent with 401 KAR 5:065 Section 2(4). A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) was used. The Steady State Toxics Wasteload Allocation Model (SSTWAM '04) generated the expected effluent requirements. All data reviewed for RPA are within the water quality standards. Monitoring will not be increased above the quarterly sampling required for Biomonitoring.

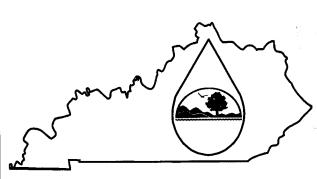
Total Recoverable Zinc

The monitoring requirement for the above permit parameter is consistent with 401 KAR 5:065 Section 2(4). A reasonable potential analysis was performed that compared monitoring data against expected effluent requirements. Monitoring data from the permittee's Discharge Monitoring Report (DMR) was used. The Steady State Toxics Wasteload Allocation Model (SSTWAM '04) generated the expected effluent requirements. All data reviewed for RPA are within the water quality standards. Monitoring will not be increased above the quarterly sampling required for Biomonitoring.

MSD - Cedar Creek Reasonable Potential Analysis

PRAM	LIM ave mg/l LIM max		AVG of DMR I	AVG of DMR MAX of DMR AVG AVG	Ave/Ave Lim %	Max/max Lim %	ave result	max result	endation	Recommendation
			-						Average	Maximum
Cadmium, Total Recoverable	0.00054	0.0055	0.00037	0.0010	68	18	None	None		
Copper, Total Recoverable	0.0208	0.0339	0.0023	0.0020	11	6	None	None		
Lead, Total Recoverable	0.0105	0.2702	0.0042	0.0380	40	14	None	None		
Zinc, Total Recoverable	0.2657	0.2657	0.0385	0.0570	15	21	None	None		
Footnotes:										
Cadmium: 15 data points used in RPA.	in RPA.									
Copper: 15 data points used in RPA	RPA.									
Lead: 15 data points used in RPA.	OA.									
Zinc: 15 data points used in RPA	Ä			i						
Recommend no additional monitoring above the biomonitoring requirement.	nitoring above	the biomonitorii	ng requireme	ent.						

KPDES FORM 1



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

	<u> </u>								
This is an application to: (check of	one)	A complete applica	ation co	nsists	of thi	s form	and on	e of the	
		following:							
Apply for reissuance of exp		Form A, Form B, F	Form C	, Form	n F, or	Short	Form C		
Apply for a construction pe	rmit.								
Modify an existing permit.		For additional inf	formati	ion co	ntact	:			
Give reason for modification	on under Item II.A.	KPDES Branch (5	502) 56	4-341	.0				
I. FACILITY LOCATION AN	D CONTACT INFORMATION	AGENCY USE	0	0	9	8	5	4	0
A. Name of business, municipality, comp. Louisville & Jefferson County Metropolit	any, etc. requesting permit an Sewer District								
B. Facility Name and Location		C. Facility Owne	er/Mail	ing A	ddress				
Facility Location Name:		Owner Name:						\	
Coder Cools Westernator Treatment Plant		Metropolitan Sewer	Dietrict					`	İ
Cedar Creek Wastewater Treatment Plant Facility Location Address (i.e. street, road		Mailing Street:	District						
Tuellity Ecounion Manages (i.e. sweet, read	-,/								
8405 Cedar Creek Road		700 West Liberty Str							
Facility Location City, State, Zip Code:		Mailing City, State,	Zip Code	e :					
Louisville, Kentucky 40291		Louisville, Kentucky							
		Telephone Number: (502) 564-6000							
		(302) 304-0000							
II. FACILITY DESCRIPTION	ſ								
	f activities, products, etc: Resident	al & Commercial W	Vastewa	ater T	reatme	ent (no	n-indus	try);	
Publically owned treatment V	Works. Existing plant is rated at 7.	5 MGD.				(3 7 7	
Tubilearly owned treatment	Works. Embering plant is raise as								
B. Standard Industrial Classificat	ion (SIC) Code and Description								
Principal SIC Code &									
Description:	4952; Sewage Treatment Facility								
1									
Other SIC Codes:	6552; Land Subdivision &								
	Land Development								
III. FACILITY LOCATION									
A. Attach a U.S. Geological Surv	vey 7 1/2 minute quadrangle map for	the site. (See instru	uctions))				***	
B. County where facility is locate	ed:	City where facility	is loca	ated (i	f appli	icable)	:		
Jefferson		Louisville							
C. Body of water receiving disch	arge:								
Cedar Creet at mile point 11.9		- 11 21 -							
D. Facility Site Latitude (degrees	s, minutes, seconds):	Facility Site Longi	itude (d	legree	s, min	utes, s	econds)	:	
36° 07' 16"		85° 35' 37"							
	O touristant (and the state of	HCCC T	ia 14						
E. Method used to obtain latitude	e & iongitude (see instructions):	USGS Topographi	ic iviap						
F. Facility Dun and Bradstreet N	umber (DLINS #) (if applicable):								
1. Facility Dull and Brausheet N	unioci (DONS π) (ii applicable).								

'			
IV. OWNER/OPERATOR INFORMATI	ON		
A. Type of Ownership:			
Publicly Owned Privately Owned		Both Public and Private Both	vate Owned Federally owned
B. Operator Contact Information (See instru Name of Treatment Plant Operator:	actions)	Telephone Number:	
James Porter (Supervisor)		(502) 239-7695	
Operator Mailing Address (Street):			
8405 Cedar Creek Road			
Operator Mailing Address (City, State, Zip Code):			
Louisville, Kentucky 40291 Is the operator also the owner?		Is the operator certified?	If yes, list certification class and number below.
Yes ☐ No ⊠		Yes 🛛 No	
Certification Class:		Certification Number:	
IV	······································	6324	
V. EXISTING ENVIRONMENTAL PER	RMITS		
Current NPDES Number:	Issue Date of Current Pern	nit:	Expiration Date of Current Permit:
	0.4.1		February 29, 2008
Number of Times Permit Reissued:	October 1, 2003 Date of Original Permit Is	suance:	Sludge Disposal Permit Number:
Transcriot Ames a state resistant.			
3 Kentucky DOW Operational Permit #:	January 1, 1995 Kentucky DSMRE Permit	Number(s)	N/A
Kentucky DOW Operational Permit #:	Kentucky DSWIKE Fermit	. Number(s).	
N/A	N/A		
C. Which of the following additional enviro	onmental permit/registra	ation categories will a	lso apply to this facility?
			PERMIT NEEDED WITH
CATEGORY	EXISTING PER	RMIT WITH NO.	PLANNED APPLICATION DATE
			N7/A
Air Emission Source	N/A		N/A
Calid as Created Wests	N/A		N/A
Solid or Special Waste	N/A		IVA
Hazardous Waste - Registration or Permit	N/A		N/A
Tidzardous Waste Tegistration of Torritor	1		
VI. DISCHARGE MONITORING REP	ORTS (DMRs)		the state of the s
KPDES permit holders are required to su	bmit DMRs to the Di	vision of Water on a	regular schedule (as defined by the KPDES
		ary the department, of	ffice or individual you designate as responsible
for submitting DMR forms to the Division	or water.		
A. Name of department, office or official su	ubmitting DMRs:	Dennis Thomasson	
B. Address where DMR forms are to be ser	nt. (Complete only if ad	dress is different fron	mailing address in Section I.)
	a . a	. Di .	
DMR Mailing Name:	Cedar Creek Wastewa	ter Plant	
DMP Mailing Street	8405 Cedar Creek Rd		
DMR Mailing Street:	0403 Couai Creek Ka		
DMR Mailing City, State, Zip Code:	Louisville, Kentucky	40211	
DMR Official Telephone Number:	(502) 239-7695		

VII	ADDI	TCA	TION	FII	INC	FFF
VII.	APPI			PIL.	TIPLE	FEE

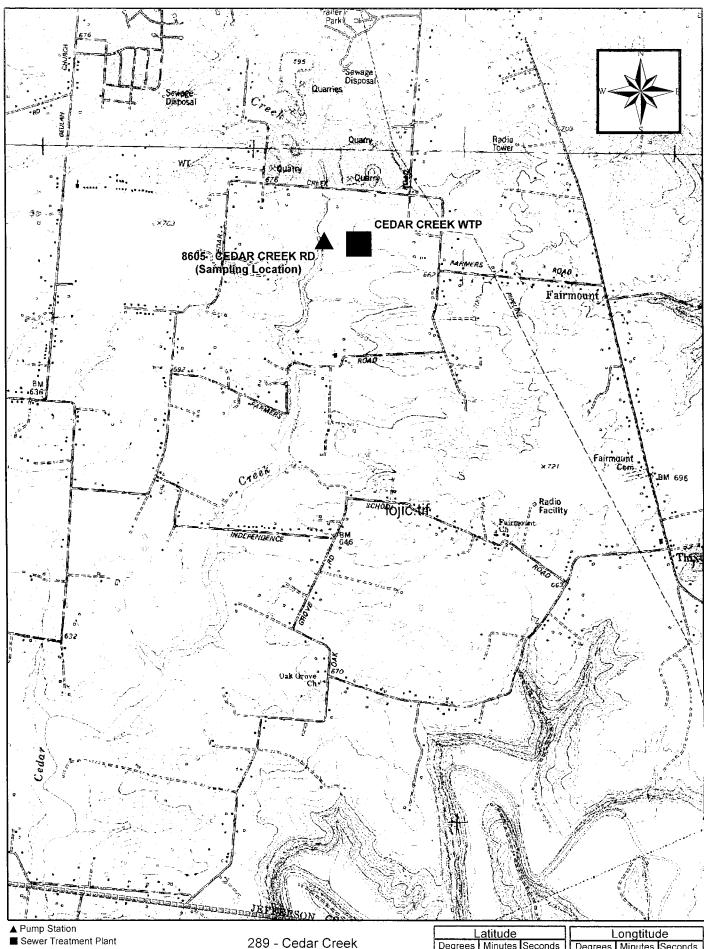
KPDES regulations require that a permit applicant pay an application filing fee equal to twenty percent of the permit base fee. Please examine the base and filing fees listed below and in the Form 1 instructions and enclose a check payable to "Kentucky State Treasurer" for the appropriate amount. Descriptions of the base fee amounts are given in the "General Instructions."

Facility Fee Category:	Filing Fee Enclosed:
Public Owned Treatment Works (No Fee Due)	N/A

VIII. CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE (type or print):	TELEPHONE NUMBER (area code and number):
Herbert J. Schardein, Jr Executive Director	(502) 540-6000
SIGNATURE	DATE:
Deuk Deputhi	08.23.07



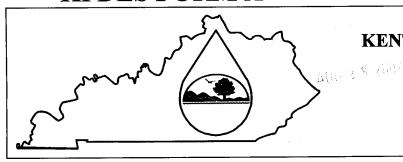
Mount Washington Quadrangle Kentucky 7.5 Minutes Series (Topographic) SE/4 Louisville 15E Quadrangle

289 - Cedar Creek Capacity 7.500 MGD

Degrees Minutes Seconds 38 07 16

Degrees 85 Minutes

KPDES FORM A



KENTUCKY POLLUTANT DISCHARGE ELIMINATION SYSTEM

PERMIT APPLICATION

A complete application consists of this form and Form 1. For additional information, contact KPDES Branch (502) 564-3410.

APPLICATION OVERVIEW	AGENCY USE	()	\circ	9	8	5	4	0
	L							

Form A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form A you must complete.

BASIC APPLICATION INFORMATION:

- A. Basic Application Information for all Applicants. All applicants must complete questions A.1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd. All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification. All applicants must complete Part C (Certification).

SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data. A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data. A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
 - 1. Has a design flow rate greater than or equal to 1 mgd,
 - 2. Is required to have a pretreatment program (or has one in place), or
 - 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes. A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
 - 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
 - 2. Any other industrial user that:
 - Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
 - Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
 - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems. A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

BASIC APPLICATION INFORMATION PART A. BASIC APPLICATION INFORMATION FOR ALL APPLICANTS: All treatment works must complete questions A.1 through A.8 of this Basic Application Information packet. A.1. Facility Information. Cedar Creek Wastewater Treatment Plant Facility name 8405 Cedar Creek Road Mailing Address Louisville, Kentucky 40291 James (Jim) Porter Contact person Process Supervisor - Operations Title (502) 239-7695 Telephone number 8405 Cedar Creek Road **Facility Address** Louisville, Kentucky (not P.O. Box) A.2. Applicant Information. If the applicant is different from the above, provide the following: Louisville and Jefferson County Metropolitan Sewer District Applicant name 700 West Liberty Street Mailing Address Louisville, Kentucky 40203 **Daymond Talley** Contact person Emergency Response Pretreatment Inspector Title (502) 540-6980 Telephone number Is the applicant the owner or operator (or both) of the treatment works? \boxtimes Operator Owner Indicate whether correspondence regarding this permit should be directed to the facility or the applicant. **Facility Applicant** A.3. Existing Environmental Permits. Provide the permit number of any existing environmental permits that have been issued to the treatment works (include state-issued permits). KY0098540 **PSD KPDES** UIC Other Other **RCRA** Collection System Information. Provide information on municipalities and areas served by the facility. Provide the name and population of each entity and, if known, provide information on the type of collection system (combined vs. separate) and its ownership (municipal, private, etc.). Name **Population Served** Type of Collection System Ownership Municipal 6,681 Connections Separate Louisville, Kentucky Total population served 6,681 Connections

.5.	Ind	ian Count	ry.												
	a.	Is the trea	tment wo	orks located	in India	an Cou	untry?								
			Yes		\boxtimes	No									
	b.	Does the through) I			harge t	to a re	ceiving wa	ter that is eith	er in Indian Coເ	intry or that i	s upstr	eam from	(and e	ventuall	y flows
			Yes		\boxtimes	No									
	ave	rage daily	flow rate	and maxim	um dail	ly flow	rate for ea	ch of the last	ewater flow rate three years. Ea prior to this app	ach year's da	ata mus	built to ha	andle). ed on a	Also pro 12-mon	ovide the th time perio
	a.	Design flo	w rate	7.5		mgd									
							Two Yea	ırs Ago	Last Yea	<u>ar</u>		This Ye	<u>ar</u>		
	b.	Annual av	erage da	ily flow rate			4.19		4.03			3.67	· · · · · · · · · · · · · · · · · · ·		_ mgd
	C.	Maximum	daily flow	w rate			11.16		13.70			11.60			_ mgd
. 7 .		Ilection Syntribution (t			type(s)	of coll	ection syst	tem(s) used by	y the treatment	plant. Checi	k all tha	at apply.	Also es	timate t	he percent
	ı	⊠ Se	parate sa	anitary sewe	er							100			_ %
	ı	□ Co	mbined s	storm and s	anitary :	sewer									_ %
8.	Die	oborgoo s	and Otho	r Disposal	Mothor	da									
		_									_			_	
	a.				_			of the U.S.?			×	Yes			No
		-		-		llowing	g types of	discharge poir	nts the treatmer	nt works uses	S :				
			•	treated efflu									1		
			•	untreated o	•	lly trea	ited effluer	nt					NA NA		
		iii. Comb	ined sev	er overflow	points								NA		
		iv. Cons	tructed e	mergency o	verflow	s (prio	r to the he	adworks)					_NA		
		v. Other	·												
	b.			t works disc utlets for dis					her surface imp	oundments		Yes		\boxtimes	No
		If yes, pro	vide the	following <u>fo</u>	r each s	surface	e impound	ment:							
		Location:													
		Annual av	erage da	•		ged to	surface in	npoundment(s		mgd					
		Is dischar	ge 🗆] continu	ous or		intermi	ittent?							
	C.	Does the	treatmen	t works land	d-apply	treate	d wastewa	iter?				Yes		\boxtimes	No
				following <u>fo</u>											
		Location:													
		Number o	of acres:												
		Annual av	erage da	ily volume	applied	to site) :		mgd						
		Is land ap	plication	☐ cor	itinuous	s or	☐ inter	mittent?	-						

ii tialisport is by a part	ty other than the ap	plicant, prov	vide:						
Transporter name:									
Mailing Address:									
Contact person:									
Title:									
Telephone number:									
•									-
Mailing Address:							,		
Contact person:									
Contact person: Title:									
-									
Title:	KPDES permit num	iber of the tr	reatment wo	orks that rec	eives this disc	charge.			
Title: Telephone number:						charge.		mgd	
Title: Telephone number: If known, provide the least	aily flow rate from t	the treatmer	nt works into	the receivi	ng facility.		Yes	mgd	No
Title: Telephone number: If known, provide the Provide the average d	laily flow rate from t orks discharge or di bove (e.g., undergro	the treatmer lispose of its ound percola	nt works into wastewate ation, well in	the receivi	ng facility.	d in	Yes		No

WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

A.9.	De	scription of Outfall.							
	a.	Outfall number	001						
	b.	Location	Louisville					40229	
			(City or town, if applicable)					(Zip Code)	
			Jefferson					Kentucky	
			(County)					(State)	
			38 deg 07 min 16 sec					85 deg 35 min 37 sec	
			(Latitude)					(Longitude)	
	C.	Distance from shore (if a	pplicable)				ft.		
	d.	Depth below surface (if a	applicable)				ft.		
			,						
	e.	Average daily flow rate		3.96			mgd		
	f.	Does this outfall have eit	ther an intermittent or a						
	١.	periodic discharge?	mer an intermittent or a		Yes	\boxtimes	Na	(no to A O n)	
					res		No	(go to A.9.g.)	
		If yes, provide the follow	ing information:						
		Number of times per yea	ar discharge occurs:						
		Average duration of each	_				-		
		Average flow per dischar					- mgd		
		Months in which discharge					- "		
		World and Willow discharge	ge occurs.				-		
	g.	Is outfall equipped with a	a diffuser?		Yes	\boxtimes	No		
A.10.	De	scription of Receiving V	Vaters.						
		Na	Codor Crook at mile no	nimt 11 0					
	a.	Name of receiving water	Cedar Creek at mile po	JIIICI I I.9					
	b.	Name of watershed (if kr	nown) Cedar Creek						
		United States Soil Conse	ervation Service 14-digit water	shed code	e (if know	/n): _			
	_	Name of State Manager	nent/River Basin (if known):						
	C.	Name of State Managem	nentriver basin (ii known).						
		United States Geologica	I Survey 8-digit hydrologic cata	aloging un	it code (i	f known)			
							_		
	d.	Critical low flow of receiv	ring stream (if applicable):						
		acute 0.0	cfs	chronic	0.0			cfs	
	e.	Total hardness of receiving	ing stream at critical low flow (if applicat	ole):			mg/l of CaCO ₃	
				• • •	<i>'</i> ——			_ 3	

A.11. De	escription of Trea	tment.									
a.	What levels of tr	eatment are	provided? Che	eck all that	apply.						
	☑ Primary	,	\boxtimes	Second	ary						
	☐ Advanc	ed	\boxtimes	Other.	Describe:	Rapid Sai	nd Filters	i			
b.	Indicate the follo	wing remova	al rates (as ap	olicable):							
	Design BOD _s r	emoval <u>or</u> D	esign CBOD _z i	removal		95	5		q	%	
	ű		- 5				-			%	
	Design SS rem	noval				85	<u> </u>				
	Design P remo	val				88	3			%	
	Design N remo	oval								%	
	Other							·		%	
C.	What type of dis	sinfection is u	used for the eff	fluent from	this outfall? If disin	fection varie	s by sea	son, ple	ase descr	ribe.	
	Ultraviolet Disi	nfection									
	If disinfection is	by chlorinati	on, is dechlori	nation used	for this outfall? N	4		Yes		No	
d.	Does the treatm	ent plant hav	ve post aeratio	n?				Yes		No	
41 m	CFR Part 136 ar	nd other app	propriate QA/	QC require	ements for standa east three sample	rd methods	for anal	ytes no	t address	ed by 4	/QC requirements of 0 CFR Part 136. At a alf years apart.
	PARAM	ETER		MAXIM	UM DAILY VALUE	Y VALUE AVERAGE DAILY VALUE					LUE
				Value	Units	Value l		Units		Number of Samples	
pH (Mir	nimum)			6.9	s.u.						
pH (Ma	ximum)			7.5	s.u.	w/s					
Flow R	ate (2006)			13.70	MGD		4.03		MGD		Cont.
Tempe	rature (Winter)										
	rature (Summer)	ant a mainimar	and a mayir	mum dailu	volue						
	For pH please rep	ort a minimu		M DAILY		E DAILY DI	SCHARC	:F	ANALY	TICAL	ML / MDL
	FOLLUTANT		DISCH	IARGE	7,12,0,0				METH		
			Conc.	Units	Conc.	Units		ber of			
CONVE	NTIONAL AND N	ONCONVEN	TIONAL COM	POUNDS.							
BIOCHE	MICAL OXYGEN	BOD-5									
DEMAN	D (Report one)	CBOD-5	13	Mg/l	1.96	Mg/l		175	SM 5	210	11
FECAL (COLIFORM		510	#/100	8.22	#/100	4	177	9222	2 D	1
TOTAL	SUSPENDED SOLI	DS (TSS)	9	Mg/l	1.31	Mg/l		176	SM 25	40D	1
REF	ER TO THE	APPLIC	ATION O		END OF PAR		: WHI	СН О	THER	PAR [*]	TS OF FORM A

YOU MUST COMPLETE

BAS	SI	C A	PPLICATION INFORMATION
PAR'	ΓΙ	В.	ADDITIONAL APPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER THAN OR EQUAL TO 0.1 MGD (100,000 gallons per day).
All ap	pli	cants	with a design flow rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).
B.1.			and Infiltration. Estimate the average number of gallons per day that flow into the treatment works from inflow and/or infiltration.
	_	3 00 I	gpd gpd
		•	explain any steps underway or planned to minimize inflow and infiltration.
	_	Curr	ently under evaluation as part of 2005 Wet Weather Consent Decree
B.2.	Т	his m	raphic Map. Attach to this application a topographic map of the area extending at least one mile beyond facility property boundaries. ap must show the outline of the facility and the following information. (You may submit more than one map if one map does not show the area.)
	a	. Th	e area surrounding the treatment plant, including all unit processes.
	b	. The	e major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which ated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable.
	C.	. Ea	ch well where wastewater from the treatment plant is injected underground.
	d		ells, springs, other surface water bodies, and drinking water wells that are: 1) within 1/4 mile of the property boundaries of the treatment rks, and 2) listed in public record or otherwise known to the applicant.
	е	. An	y areas where the sewage sludge produced by the treatment works is stored, treated, or disposed.
	f.	rai	he treatment works receives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, l, or special pipe, show on the map where that hazardous waste enters the treatment works and where it is treated, stored, and/or posed.
	ba ch	ckup Iorina	s Flow Diagram or Schematic. Provide a diagram showing the processes of the treatment plant, including all bypass piping and all power sources or redundancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., tion and dechlorination). The water balance must show daily average flow rates at influent and discharge points and approximate daily as between treatment units. Include a brief narrative description of the diagram.
B.4.	Oı	perat	ion/Maintenance Performed by Contractor(s).
	Ar		operational or maintenance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a
			st the name, address, telephone number, and status of each contractor and describe the contractor's responsibilities (attach additional f necessary).
	Na	ame:	
	Ma	ailing	Address:
	т.	lonh	one Number:
	, -	siepiik	one Number:
	Re	espor	sibilities of Contractor:
	ur tre	com _l eatme	uled Improvements and Schedules of Implementation. Provide information on any uncompleted implementation schedule or oleted plans for improvements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the ent works has several different implementation schedules or is planning several improvements, submit separate responses to question B.5 n. (If none, go to question B.6.)
	a.	Lis	st the outfall number (assigned in question A.9) for each outfall that is covered by this implementation schedule.
		_	IA
	b.	In	dicate whether the planned improvements or implementation schedule are required by local, State, or Federal agencies.
			Yes No

С	If the answer to B.5	.b is "Yes," brief	ly describe, includ	ling new maxim	num daily inflow i	rate (if applicab	le).	
d.	applicable. For imp	provements plan	ned independently	y of local, State	ates of completio , or Federal age	on for the imple	mentation steps listed planned or actual con	d below, as npletion dates, as
			Schedule	Ad	ctual Completion			
	Implementation Sta	ge	MM / DD / Y	YYY M	M / DD / YYYY			
	- Begin constructio	n						
	- End construction							
	- Begin discharge							
	- Attain operational	level						
e.	Have appropriate p	ermits/clearance	es concerning other	er Federal/State	e requirements b	een obtained?	☐ Yes ☐ No	
	Describe briefly:							
	_							
		•		•				
tes se me sta	sting required by the wer overflows in this ethods. In addition, the andard methods for a	permitting autho section. All info his data must co nalytes not addr	rity for each outfa rmation reported i imply with QA/QC essed by 40 CFR	Il through which must be based requirements of Part 136. At a	n effluent is dischon data collected of 40 CFR Part 1	narged. Do not d through analy 36 and other a	include information of rsis conducted using of ppropriate QA/QC rec	on combined 40 CFR Part 136 quirements for
Οι	utfall Number: <u>001</u>							
Р	OLLUTANT	lementation Stage						
				Conc.	Units			ML / MDL
CONVEN	ITIONAL AND NONC	CONVENTIONAL	COMPOUNDS		l	<u> </u>		

POLLUTANT		IM DAILY HARGE	AVERAG	SE DAILY DISC	CHARGE		
4	Conc.	Units	Conc.	Units	Number of Samples	ANALYTICAL METHOD	ML / MDL
CONVENTIONAL AND NON	CONVENTIONA	L COMPOUNDS	3.	 	•		
AMMONIA (as N)	6.3	Mg/l	0.14	Mg/l	476	SM 4500 NH3 B&C	0.05
CHLORINE (TOTAL RESIDUAL, TRC)							
DISSOLVED OXYGEN			7.0		476	4500G	0.1
TOTAL KJELDAHL NITROGEN (TKN)	NA		NA				
NITRATE PLUS NITRITE NITROGEN	NA		NA				
OIL and GREASE	NA		NA				
PHOSPHORUS (Total)	2.8	Mg/l	0.64	Mg/l	476	EPA 200.7	0.006
TOTAL DISSOLVED SOLIDS (TDS)	NA		NA				
OTHER							

END OF PART B. REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM A YOU MUST COMPLETE

BASIC APPLICATION	ON INFORMATION
PART C. CERTIFICATION	
All applicants must complete t applicants must complete all a have completed and are subm	the Certification Section. Refer to instructions to determine who is an officer for the purposes of this certification. All applicable sections of Form A, as explained in the Application Overview. Indicate below which parts of Form A you ditting. By signing this certification statement, applicants confirm that they have reviewed Form A and have completed discillity for which this application is submitted.
Indicate which parts of	Form A you have completed and are submitting:
■ Basic Application Info	ormation packet Supplemental Application Information packet:
	☑ Part D (Expanded Effluent Testing Data)
	☑ Part E (Toxicity Testing: Biomonitoring Data)
	☐ Part F (Industrial User Discharges and RCRA/CERCLA Wastes)
	☐ Part G (Combined Sewer Systems)
ALL APPLICANTS MUST CO	MPLETE THE FOLLOWING CERTIFICATION.
designed to assure that qualif	nat this document and all attachments were prepared under my direction or supervision in accordance with a system ied personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons ose persons directly responsible for gathering the information, the information is, to the best of my knowledge and uplete. I am aware that there are significant penalties for submitting false information, including the possibility of fine given as a property of the property of th
Name and official title	Herbert J. Shardein, Jr., Executive Director
Signature	Deuk RGuttin for Ho Schoolin, Jr.
Telephone number	(502) 540-6000
Date signed	08.23.07
Upon request of the permittin treatment works or identify ap	g authority, you must submit any other information necessary to assess wastewater treatment practices at the propriate permitting requirements.

SEND COMPLETED FORMS TO:

Division of Water, KPDES Branch Inventory & Data Management Section Frankfort Office Park 14 Reilly Road Frankfort, Kentucky 40601

For additional information call: (502) 564-2225, extension 465.

SUPPLEMENTAL APPLICATION INFORMATION

PART D. EXPANDED EFFLUENT TESTING DATA

Refer to the directions on the cover page to determine whether this section applies to the treatment works.

Effluent Testing: 1.0 mgd and Pretreatment Treatment Works. If the treatment works has a design flow greater than or equal to 1.0 mgd or it has (or is required to have) a pretreatment program, or is otherwise required by the permitting authority to provide the data, then provide effluent testing data for the following pollutants. Provide the indicated effluent testing information and any other information required by the permitting authority for each outfall through which effluent is discharged. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analyses conducted using 40 CFR Part 136 methods. In addition, these data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136. Indicate in the blank rows provided below any data you may have on pollutants not specifically listed in this form. At a minimum, effluent testing data must be based on at least three pollutant scans and must be no more than four and one-half years old.

Outfall number: 001 (Complete once for each outfall discharging effluent to waters of the United States.)

POLLUTANT	•	MIXAMU	M DAIL)		AV		DAILY				
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
METALS (TOTAL RECOVERABLE), C	YANIDE,	PHENOL	S, AND F	ARDNES	S.						
ANTIMONY	<0.012	mg/l			<0.006	mg/l			4	EPA 200.7	0.012
ARSENIC	0.009	mg/l			0.0045	mg/l			4	EPA 200.7	0.006
BERYLLIUM	<0.002	mg/l			<0.001	mg/l			4	EPA 200.7	0.002
CADMIUM	<0.001	mg/l			<.0003	mg/l			15	EPA 200.7/200.9	0.001
CHROMIUM	<0.002	mg/l			<0.001	mg/l			4	EPA 200.7	0.002
COPPER	<0.022	mg/l			<.0023	mg/l			15	EPA 200.7	0.003
LEAD	0.038	mg/l			<0.004	mg/l			15	EPA 200.7	0.004
MERCURY	0.76	ug/l			0.38	ug/l			2	1631E	0.0005
NICKEL	<0.003	mg/l			0.0015	mg/l			4	EPA 200.7	0.003
SELENIUM	<0.01	mg/l			<0.005	mg/l			4	EPA 200.7	0.01
SILVER	0.001	mg/l			<0.001	mg/l			4	EPA 200.7	0.002
THALLIUM	<0.007	mg/l			<0.007	mg/l			4	EPA 200.7	0.014
ZINC	0.057	mg/l			0.039	mg/l			15	EPA 200.7	0.011
CYANIDE											
TOTAL PHENOLIC COMPOUNDS											
HARDNESS (AS CaCO ₃)	275	mg/l			247	mg/l			15	SM2340B	
Use this space (or a separate sheet) to	provide in	formation	on other	metals re	quested b	y the peri	nit writer.	T		T	
				-				ļ			

Outfall number: 001 (Con POLLUTANT			M DAIL				DAILY		nited States		
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
OLATILE ORGANIC COMPOUNDS.	•										
ACROLEIN	<10	ug/l							1	EPA 624	
ACRYLONITRILE	<10	ug/l	1						1	EPA 624	
BENZENE	<5	ug/l							1	EPA 624	
BROMOFORM	<5	ug/l							1	EPA 624	
CARBON TETRACHLORIDE	<5	ug/l							1	EPA 624	
CLOROBENZENE	<5	ug/l							1	EPA 624	
CHLORODIBROMO-METHANE	<5	ug/l							1	EPA 624	
CHLOROETHANE	<5	ug/l							1	EPA 624	
2-CHLORO-ETHYLVINYL ETHER	<5	ug/l							1	EPA 624	
CHLOROFORM	<5	ug/l							1	EPA 624	
DICHLOROBROMO-METHANE	<10	ug/l							1	EPA 624	
1,1-DICHLOROETHANE	<5	ug/l							1	EPA 624	
1,2-DICHLOROETHANE	<5	ug/l							1	EPA 624	
TRANS-1,2-DICHLORO-ETHYLENE											
1,1-DICHLOROETHYLENE											
1,2-DICHLOROPROPANE	<5	ug/l							1	EPA 624	
1,3-DICHLORO-PROPYLENE											
ETHYLBENZENE	<5	ug/l							1	EPA 624	
METHYL BROMIDE											
METHYL CHLORIDE											
METHYLENE CHLORIDE	<5	ug/l							1	EPA 624	
1,1,2,2-TETRACHLORO-ETHANE	<5	ug/l							1	EPA 624	
TETRACHLORO-ETHYLENE											
TOLUENE	<5	ug/l							1	EPA 624	

									nited States.)	
POLLUTANT	^		M DAILY	r	AV	EKAGE	DAILY	DISCH/	ARGE		
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
1,1,1-TRICHLOROETHANE	<5	ug/l							1	EPA 624	
1,1,2-TRICHLOROETHANE	<5	ug/l							1	EPA 624	
TRICHLORETHYLENE											
VINYL CHLORIDE	<10	ug/l							1	EPA 624	
Use this space (or a separate sheet) to	provide inf	formation	on other	volatile or	ganic con	pounds r	equested	by the po	ermit writer.		
ACID-EXTRACTABLE COMPOUNDS	T	T	I	T	[T	<u> </u>	T			
P-CHLORO-M-CRESOL											
2-CHLOROPHENOL	<10	ug/l							1	EPA 625	
2,4-DICHLOROPHENOL	<10	ug/l							1	EPA 625	
2,4-DIMETHYLPHENOL	<10	ug/l							1	EPA 625	
4,6-DINITRO-O-CRESOL											
2,4-DINITROPHENOL	<10	ug/l							1	EPA 625	
2-NITROPHENOL	<10	ug/l							1	EPA 625	
4-NITROPHENOL	<50	ug/l							1	EPA 625	
PENTACHLOROPHENOL	<50	ug/l							1	EPA 625	
PHENOL	<10	ug/l							1	EPA 625	
2,4,6-TRICHLOROPHENOL	<10	ug/l							1	EPA 625	
Use this space (or a separate sheet) to	provide in	formatio	n on other	acid-extr	actable co	mpounds	requeste	ed by the	permit writer.	1	
			<u></u>								
BASE-NEUTRAL COMPOUNDS.		1	1		1 	Т	T	1			
ACENAPHTHENE	<10	ug/l	ļ						1	EPA 625	
ACENAPHTHYLENE	<10	ug/l		_					1	EPA 625	
ANTHRACENE	<10	ug/l							1	EPA 625	
BENZIDINE	<50	ug/l							1	EPA 625	
BENZO(A)ANTHRACENE	<10	ug/l							1	EPA 625	
BENZO(A)PYRENE	<10	ug/l							1	EPA 625	

									nited States)	
POLLUTANT	DISCHARGE						DAILY	DISCH	ARGE		
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
3,4 BENZO-FLUORANTHENE											
BENZO(GHI)PERYLENE	<10	ug/l							1	EPA 625	
BENZO(K)FLUORANTHENE	<10	ug/l							1	EPA 625	
BIS (2-CHLOROETHOXY) METHANE	<10	ug/l							1	EPA 625	
BIS (2-CHLOROETHYL)-ETHER	<10	ug/l							1	EPA 625	
BIS (2-CHLOROISO-PROPYL) ETHER	<10	ug/l							1	EPA 625	
BIS (2-ETHYLHEXYL) PHTHALATE	<10	ug/i							1	EPA 625	
4-BROMOPHENYL PHENYL ETHER	<10	ug/l							1	EPA 625	
BUTYL BENZYL PHTHALATE	<10	ug/l							1	EPA 625	
2-CHLORONAPHTHALENE	<10	ug/l							1	EPA 625	
4-CHLORPHENYL PHENYL ETHER	<10	ug/l							1	EPA 625	
CHRYSENE	<10	ug/l							1	EPA 625	
DI-N-BUTYL PHTHALATE	<10	ug/l							1	EPA 625	
DI-N-OCTYL PHTHALATE	<10	ug/l							1	EPA 625	
DIBENZO(A,H) ANTHRACENE	<10	ug/l						,	1	EPA 625	
1,2-DICHLOROBENZENE	<10	ug/l							1	EPA 625	
1,3-DICHLOROBENZENE	<10	ug/l							1	EPA 625	
1,4-DICHLOROBENZENE	<10	ug/l							1	EPA 625	
3,3-DICHLOROBENZIDINE	<50	ug/l							1	EPA 625	
DIETHYL PHTHALATE	<10	ug/l							1	EPA 625	
DIMETHYL PHTHALATE	<10	ug/l							1	EPA 625	
2,4-DINITROTOLUENE	<10	ug/l							1	EPA 625	
2,6-DINITROTOLUENE	<10	ug/l							1	EPA 625	
1,2-DIPHENYLHYDRAZINE	<10	ug/l							1	EPA 625	

Outfall number: 001 (Co		MIXAN	M DAIL				DAILY		nited States ARGE		
	Conc.	Units	Mass	Units	Conc.	Units	Mass	Units	Number of Samples	ANALYTICAL METHOD	ML/ MDL
FLUORANTHENE	<10	ug/l							1	EPA 625	
FLUORENE	<10	ug/l							1	EPA 625	
HEXACHLOROBENZENE	<10	ug/l							1	EPA 625	
HEXACHLOROBUTADIENE	<10	ug/l							1	EPA 625	
HEXACHLOROCYCLO- PENTADIENE	<10	ug/l							1	EPA 625	
HEXACHLOROETHANE	<10	ug/l							1	EPA 625	
INDENO(1,2,3-CD)PYRENE	<10	ug/l							1	EPA 625	
ISOPHORONE	<10	ug/l							1	EPA 625	
NAPHTHALENE	<10	ug/l							1	EPA 625	
NITROBENZENE	<10	ug/l							1	EPA 625	
N-NITROSODI-N-PROPYLAMINE	<10	ug/l							1	EPA 625	
N-NITROSODI- METHYLAMINE	<10	ug/l							1	EPA 625	
N-NITROSODI-PHENYLAMINE	<10	ug/l							1	EPA 625	
PHENANTHRENE	<10	ug/l							1	EPA 625	
PYRENE	<10	ug/l							1	EPA 625	
1,2,4-TRICHLOROBENZENE	<10	ug/l							1	EPA 625	
Use this space (or a separate sheet) t	o provide ir	formatio	n on other	base-neu	itral comp	ounds red	uested by	y the per	mit writer.		
Use this space (or a separate sheet) t	o provide ir	ntormatio	n on otner	pollutant	s (e.g., pe	sticides) f	equested	by the p	ermit writer.		

END OF PART D.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM

A YOU MUST COMPLETE

SUPPLEMENTAL APPLICATION INFORMATION

PART E. TOXICITY TESTING DATA

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity
 test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results
 of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.
 biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to

methods. If test summaries and If no biomonitoring data is required, do not complete.	e available that contain all of the info t complete Part E. Refer to the Appl	ormation requested below, they may be ication Overview for directions on which	ch other sections of the form to
E.1. Required Tests.			
Indicate the number of whole ef	fluent toxicity tests conducted in the	past four and one-half years.	
18 chronic	acute		
E.2. Individual Test Data. Complete the one column per test (where each spe	following chart <u>for each whole efflue</u> cies constitutes a test). Copy this p	ent toxicity test conducted in the last for age if more than three tests are being	ur and one-half years. Allow reported.
	Test number: 1	Test number: 2	Test number: 3
a. Test information.			
Test species & test method number	Ceriodaphnia Dubia	Ceriodaphnia Dubia	Ceriodaphnia Dubia
Age at initiation of test			
Outfall number	001	001	001
Dates sample collected	3/5/07; 3/7/07; 3/9/07	11/13/06; 11/15/06; 11/17/06	9/11/06; 9/13/06; 9/15/06
Date test started	3/7/07	11/15/07	9/13/06
Duration	7 Days	7 Days	7 Days
b. Give toxicity test methods follow	ed.		
Manual title	Short Term Method for the Chronic Toxicity of Effluents & Receiving Waters to Freshwater Organisms	Short Term Method for the Chronic Toxicity of Effluents & Receiving Waters to Freshwater Organisms	Short Term Method for the Chronic Toxicity of Effluents & Receiving Waters to Freshwater Organisms
Edition number and year of publication	4 th Ed., 2002	4 th Ed., 2002	4 th Ed., 2002
Page number(s)			
c. Give the sample collection meth	od(s) used. For multiple grab samp	les, indicate the number of grab samp	les used.
24-Hour composite	24hr Comp	24hr Comp	24hr Comp
Grab			
d. Indicate where the sample was	taken in relation to disinfection. (Che	eck all that apply for each)	
Before disinfection			
After disinfection	х	x	x
After dechlorination			

	Test number: 1	Test number: 2	Test number: 3
e. Describe the point in the treatn	nent process at which the sample wa		
Sample was collected:	Effluent Channel	Effluent Channel	Effluent Channel
	the test was intended to assess chror		
Chronic toxicity	Assess Chronic	Assess Chronic	Assess Chronic
Acute toxicity			
g. Provide the type of test perforr	med		
Static			
Static-renewal	X	X	x
Flow-through		a water appoint a course	
	oratory water, specify type; if receiving		
Laboratory water	X	X	X
Receiving water			
i. Type of dilution water. If salt w	ater, specify "natural" or type of artific		
Fresh water	X	X	X
Salt water			<u> </u>
	sed for all concentrations in the test se	eries.	
k. Parameters measured during	the test. (State whether parameter me	eets test method specifications)	
PH	х	х	x
Salinity			
Temperature	х	x	x
Ammonia			
Dissolved oxygen	х	х	x
I. Test Results.			
Acute: NA			
Percent survival in 100% effluent	%	%	%
LC ₅₀			
95% C.I.	%	%	%
Control percent survival	%	%	%
Other (describe)			

Chronic:												
NOEC	NA %	NA	NA									
IC ₂₅	>100 %	>100 %	>100 %									
Control percent survival	100 %	90 %	100 %									
Other (describe)												
m. Quality Control/Quality Assuran	ce.											
Is reference toxicant data available?	⊠ YES □ NO	⊠ YES □ NO	⊠ YES □ NO									
Was reference toxicant test within acceptable bounds?	⊠ YES □ NO	⊠ YES □ NO	⊠ YES □ NO									
What date was reference toxicant test run (MM/DD/YYYY)?	2/13/07	10/30/06	8/29/06									
Other (describe)												
E.3. Toxicity Reduction Evaluation. Is ☐ Yes ☑ No If yes,	the treatment works involved in a To	exicity Reduction Evaluation?										
cause of toxicity, within the past for summary of the results. Date submitted: *Note Cedar Creek performs Biomonito Water Summary of results: (see instruction	Date submitted: *Note (MM/DD/YYYY) * Submitted with DMRs by the 28 th day of the month following the end of the quarter Cedar Creek performs Biomonitoring sampling Quarterly; results are submitted on Discharge Monitoring Reports to Division of											

END OF PART E.

REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH OTHER PARTS OF FORM
A YOU MUST COMPLETE.

Additional Information
Cedar Creek WTP KY0098540
Outfall 001
Part E. Toxicity Testing Data
E.4 Summary of Submitted Biomonitoring Test Information





Toxicity Test Results

Ceriodaphnia Results of (Genus)

dubia (Species) 6 day chronic definitive (Type / Duration)

Toxicity Test

Conducted:

03/08/06 (mm/dd/yy) 03/14/06

(mm/dd/yy)

Using Effluent from Outfall # 1

		P	# of Young		Dry Weight						
		`	nterval		- DAY	,		Total	Mean	Total	Mean
1	2	3	4	5	6	7	8	10141	TVICAII	Total	ivican
100	100	100	100	100	90			202	20.2	:	
100	100	100	100	100	90			254	25.4		
100	100	100	100	100	100			301	30.1		
100	100	100	100	100	100			348	34.8		
100	100	100	100	100	100			290	29		
100	100	100	100	100	100			304	30.4		
	100 100 100 100	1 2 100 100 100 100 100 100 100 100 100 100	time is 1 2 3 100 100 100 100 100 100 100 100 100 1	1 2 3 4 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	(time intervals used: 1 2 3 4 5 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	1 2 3 4 5 6 100 100 100 100 90 100 100 100 100 100 90 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	(time intervals used:- DAY) 1 2 3 4 5 6 7 100 100 100 100 100 90 100 100 100 100 100 90 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100 100	(time intervals used:- DAY) 1 2 3 4 5 6 7 8 100 100 100 100 100 90	(time intervals used:- DAY) 1 2 3 4 5 6 7 8 Total 100 100 100 100 100 90 202 100 100 100 100 100 90 254 100 100 100 100 100 100 301 100 100 100 100 100 348 100 100 100 100 100 290	(time intervals used:- DAY) 1 2 3 4 5 6 7 8 Total Mean 100 100 100 100 100 90 202 20.2 100 100 100 100 90 254 25.4 100 100 100 100 100 301 30.1 100 100 100 100 100 348 34.8 100 100 100 100 100 290 29	(time intervals used:- DAY) 1 2 3 4 5 6 7 8 Total Mean Total 100 100 100 100 100 90 202 20.2 100 100 100 100 90 254 25.4 100 100 100 100 100 301 30.1 100 100 100 100 100 348 34.8 100 100 100 100 100 290 29

LC₅₀ / IC₂₅ Value:

Calculated TU Estimate * < 1.0 TUc

(indicate Aute / Chromic)

95% Confidence Limits

Permit Limits:

1.0 TUc (Indicate TU_a / TU_c)

UL: NA LL: NA

If acute test, method used to determine

UL = Upper Limit

LC50 and Confidence Limit Valued: ___

LL = Lower Limit

Reference Toxicant Test Results									
Species Ceriodaphnia dubia	Date 02/07/06	Time 3:30 P.M.	Duration 6 days	Toxicant NaCl	Results (LC ₅₀ / IC ₂₅) <u>IC25=1.1563g/l</u>				





Toxicity Test Results

Results of

Ceriodaphnia (Genus)

dubia (Species) 7 day chronic definitive (Type / Duration)

Toxicity Test

Conducted:

09/13/06

09/20/06

Using Effluent from Outfall # __1_

(mm/dd/yy) (mm/dd/yy)

Percent S						# of Young Dry		Dry V	Veight			
Test Solution	1	2	(time ii 3	ntervals 4	s used:- 5	- DAY) 6	7	8	Total	Mean	Total	Mean
Control	100	100	100	100	100	100	100		256	25.6		
20% Effluent	100	100	100	100	100	100	100		307	30.7		
40% Effluent	100	100	100	100	100	100	100		306	30.6		
60% Effluent	100	100	100	100	100	100	100		324	32.4		
80% Effluent	100	100	100	100	100	100	100		320	32		
100% Effluent	100	100	100	100	100	100	100		334	33.4		
LC ₅₀ / IC ₂₅ Value: > 100% 95% Confidence Limits UL: NA				Calculated TU Estimate * < 1.0 Tuc (indicate Aute / Chromic) Permit Limits: 1.0 TUc (Indicate TU _a / TU _c)								
LL:	<u> </u>				If a	acute te	est, met	hod us	ed to d	etermir	ne	
LL = Lower 1					LC50 and Confidence Limit Valued:							

Reference Toxicant Test Results									
Species	Date	Time	Duration	Toxicant	Results (LC ₅₀ / IC ₂₅)				
Ceriodaphnia	08/29/06	2:00 P.M.	6 days	<u>NaCl</u>	IC25=0.8994g/l				
dubia									

Grab#



Toxicity Test Results

Results of Cerioa

Ceriodaphnia (Genus)

dubia (Species)

6 day chronic definitive (Type / Duration)

Toxicity Test

Conducted:

11/15/06 (mm/dd/yy) 11/21/06 (mm/dd/yy)

Using Effluent from Outfall # 1

T				Percent	Surviv	/al			# of	Young	Dry I	Weight
Test Solution	1	(time intervals used:- DAY)								Touris	Diy	T
	1	2	3	4	5	6	7	8	Total	Mean	Total	Mean
Control	100	100	100	100	90	90			320	32		
20% Effluent	100	100	100	100	100	100			375	37.5		
40% Effluent	100	100	100	100	100	90			352	35.2		-
60% Effluent	100	100	100	100	100	90			306	30.6		
80% Effluent	100	100	100	100	100	90			357	35.7		
100% Effluent	100	100	100	100	100	100	====		358	35.8		
						L	·					

LC₅₀ / IC₂₅ Value:

> 100%

Calculated TU Estimate * < 1.0 Tuc

(indicate Aute / Chromic)

95% Confidence Limits

UL:

NA

LL:

NA

UL = Upper Limit

LL = Lower Limit

Permit Limits: 1.0 TUc

(Indicate TU_a / TU_c)

If acute test, method used to determine LC50 and Confidence Limit Valued:

	Reference Toxicant Test Results											
Species Ceriodaphnia dubia	Date 10/30/06	Time 1:00 P.M.	Duration 6 days	Toxicant NaCl	Results (LC ₅₀ / IC ₂₅) <u>IC25=0.8760g/l</u>							



Toxicity Test Results

Results of

Ceriodaphnia (Genus)

dubia (Species)

7 day chronic definitive (Type / Duration) Toxicity Test

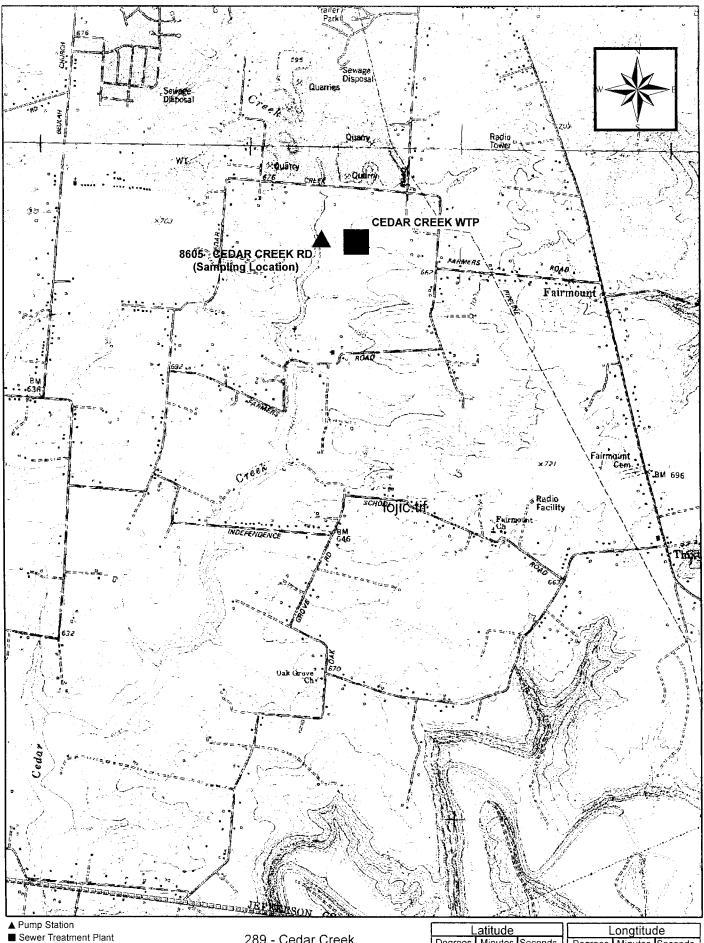
Conducted:

03/07/07 (mm/dd/yy) 03/14/07 (mm/dd/yy) Using Effluent from Outfall # ___1_

Percent St				Surviya	rvival # of Young Dry			Dry V	Veight			
Test Solution	1	2	(time in	ntervals 4	used:- 5	DAY)	7	8	Total	Mean	Total	Mean
Control	100	100	100	100	100	100	100		265	26.5		
20% Effluent	100	100	100	100	100	100	100		257	25.7		
40% Effluent	100	90	90	90	90	90	90		245	245		
60% Effluent	100	90	90	90	90	90	90		230	25.6		
80% Effluent	100	100	100	100	100	100	100		259	28.8		
100% Effluent	100	100	100	100	100	100	100		294	29.4		
LC ₅₀ / IC ₂₅ Value: > 100% 95% Confidence Limits UL: NA				Calculated TU Estimate * < 1.0 Tuc (indicate Aute / Chromic) Permit Limits: 1.0 TUc (Indicate TU _a / TU _c)								
UL = Upper	LL: NA UL = Upper Limit LL = Lower Limit				If acute test, method used to determine LC50 and Confidence Limit Valued:							

Reference Toxicant Test Results									
Species Ceriodaphnia dubia	Date 02/13/07	Time 2:30 P.M.	Duration 7 days	Toxicant NaCl	Results (LC ₅₀ / IC ₂₅) <u>IC25=0.8589g/l</u>				

KPDES Permit Application Attachments & Additional Information Cedar Creek Wastewater Treatment Plant KY0098540, Outfall 001



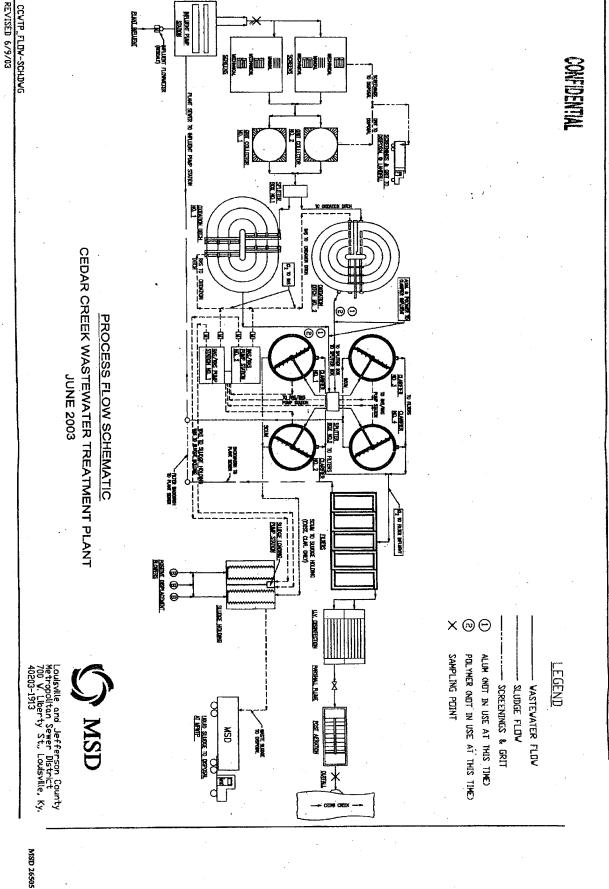
Mount Washington Quadrangle Kentucky 7.5 Minutes Series (Topographic) SE/4 Louisville 15E Quadrangle

289 - Cedar Creek Capacity 7.500 MGD

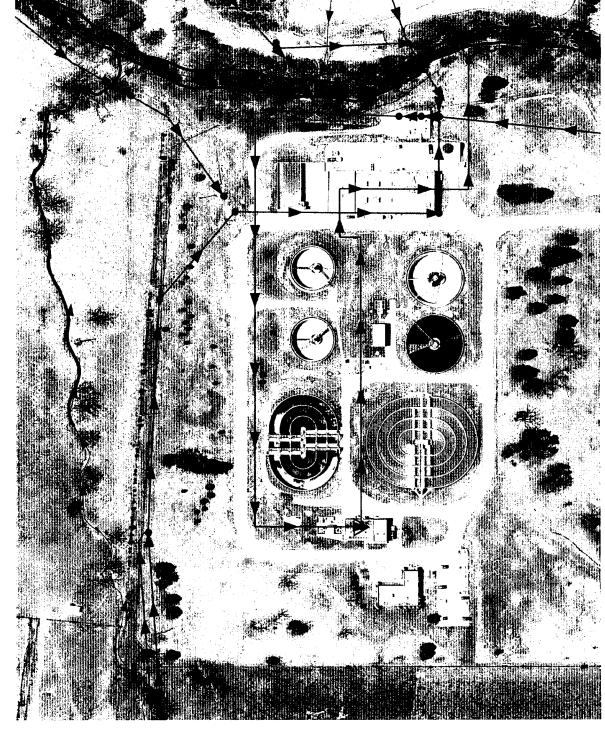
Mount Washington Quadrangle

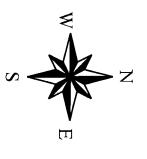
Latitude						
Degrees	Minutes	Seconds	D			
38	07	16				

egrees 85 Minutes Seconds 37



Cedar Creek WTI





0.08

0.08

0.16 Miles

★ Sample Locations
◆ Sewernd
✓ Sewer
Drainage Lines
Channels
Pipes
A Treatment Plants
Text Street Names
✓ Streams